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**Subsidiary Body for Scientific and
Technological Advice**

**Forty-seventh session
Bonn, 6–15 November 2017**

Item X of the provisional agenda

Subsidiary Body for Implementation

**Forty-seventh session
Bonn, 6–15 November 2017**

Item X of the provisional agenda

**Meeting of the ad hoc technical expert group on response
measures**

Report by the co-chairs of the ad hoc technical expert group

Summary

The meeting of the ad hoc technical expert group (TEG) on response measures was held on 9 and 10 May 2017 in Bonn, Germany. TEG members exchanged information, experience, case studies and views on two areas: (1) economic diversification and transformation; and (2) just transition of the workforce and the creation of decent work and quality jobs. The discussion took place with a view to further elaborating the technical work on the areas of the work programme on the impact of the implementation of response measures, in the context of sustainable development. The information contained in this report aims to inform the in-forum discussions of Parties at the forty-seventh sessions of the subsidiary bodies, with a view to taking forward the work programme.

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I. Introduction

A. Mandate

1. The Subsidiary Body for Implementation (SBI) and the Subsidiary Body for Scientific and Technological Advice (SBSTA), at their forty-fifth sessions, agreed to advance the technical work on the impact of the implementation of response measures by constituting an ad hoc technical expert group (TEG) that was to meet in-session during SBI 46 and SBSTA 46. They also agreed that the TEG should elaborate on technical work on the areas of the work programme on the impact of the implementation of response measures, in the context of sustainable development.¹

2. SBI 46 and SBSTA 46 requested the co-chairs of the TEG to prepare, with the support of the secretariat, and building on the summary of the TEG meeting,² a detailed report on the discussion of the TEG at its meeting, for consideration at SBI 47 and SBSTA 47.³

B. Possible action by the Subsidiary Body for Implementation and the Subsidiary Body for Scientific and Technological Advice

3. The subsidiary bodies may wish to take into consideration the information contained in this report, together with the submissions to be made by Parties on aspects related to economic diversification and transformation and just transition of the workforce and the creation of decent work and quality jobs, in the context of sustainable development, when discussing the improved forum at SBI 47 and SBSTA 47.

II. Proceedings

4. The meeting of the TEG took place in Bonn, Germany, on 9 and 10 May 2017 and was co-chaired by Mr. Peter Govindasamy (Singapore) and Ms. Alexandria Rantino (Australia). The meeting was attended by a total of 12 TEG members: 10 members nominated by regional groups of the United Nations and small island developing States; and 2 members nominated by intergovernmental organizations.

5. The nominations of the co-chairs of the TEG were observed by the Chairs of the SBI and the SBSTA and Parties in a contact group meeting that took place prior to the meeting of the TEG.

6. After a welcome speech made by the co-chairs of the TEG, members agreed on the agenda. The secretariat then provided background information and an update on the work of the improved forum and its work programme.

7. The meeting programme was divided into two sessions:

(a) Session one on the area of elaboration of technical work on economic diversification and transformation in the context of sustainable development;

(b) Session two on the area of elaboration of technical work on the just transition of the workforce and the creation of decent work and quality jobs in the context of sustainable development.

8. At each session, presentations were made by TEG members, followed by discussions on impact identification and assessment, international cooperation, and capacity-building. The meeting concluded with the co-chairs summarizing the discussion.

¹ FCCC/SBI/2016/20, paragraph 98, and FCCC/SBSTA/2016/4, paragraph 61.

² Available at <http://unfccc.int/10142.php>.

³ FCCC/SBI/2017/7, paragraph 83, and FCCC/SBSTA/2017/4, paragraph 61.

9. All documents related to the meeting are available on the UNFCCC website,⁴ including the agenda, the list of experts who presented, their presentations and a summary of the discussion prepared by the co-chairs.

A. Session 1: elaboration of technical work on economic diversification and transformation in the context of sustainable development

1. Presentations

10. The first session on the area of economic diversification and transformation was chaired by Mr. Govindasamy. The TEG members from the United Nations Development Programme (UNDP), European Union (EU), Maldives nominated by the small island developing States (SIDS), South Africa nominated by the African Group and Singapore nominated by the Asia-Pacific States presented their views, work and experience.

11. The member from UNDP presented on the support provided by its organization to help developing countries to diversify and transform their economies. These activities include, among others:

(a) A global initiative of the United Nations Conference on Trade and Development, International Trade Commission, UNDP, International Monetary Fund, World Bank and World Trade Organization (WTO) to improve the participation of developing countries in international trade, which is considered an important driver for economic diversification;

(b) Cooperation with resource-rich economies in enhancing the role of the extractive sector in sustainable development;

(c) Partnerships among the United Nations Environment Programme (UNEP), United Nations Industrial Development Organization and United Nations Institute for Training and Research on green economy initiatives that help to catalyse new models of green transformation, green industrialization and supply chains;

(d) Capacity development initiatives on the sustainable use of biodiversity for ecotourism.

12. The presentation made by the member from the EU shared the experience of developing the EU 2030 climate and energy framework. He stressed that the policy does not operate in isolation. It moves forward together with many other policies in a coherent manner.

13. The experience of the EU was that the relationship between climate actions and economic growth is not a trade-off. Rather, low-carbon transition is the key to long-term sustainable growth. The member noted an increase in green jobs from 2.8 million in 2000 to 4.2 million in 2013, linked to increases in renewable energy and energy efficiency.

14. The member also provided information on an EU policymaking initiative described in a guidebook titled *Better Regulation*.⁵ The guidebook elaborates the cycle of policymaking, which starts with the evaluation of existing policies, followed by impact assessment, proposal making, adoption and implementation. In terms of timing, the whole process may take several years. He stressed the importance of stakeholder consultation across all steps.

15. With respect to impact assessment, a wide range of indicators are covered, ranging from sectoral impacts, macroeconomic and social impacts, to distributional impacts on individual EU member States. Global impacts are also included, as confirmed by the presenter. He further emphasized that the impact assessment is underpinned by quantitative assessment, including modelling.

16. The member also mentioned the European Social Fund, which supports its member States on reforms in education, skills development and upskilling of the labour force with a

⁴ <http://unfccc.int/10142.php>.

⁵ http://ec.europa.eu/smart-regulation/guidelines/toc_guide_en.htm.

view to promoting economic and social cohesion. In addition to actions taken within the EU, the member highlighted EU-funded grant programmes in Asia and Africa to support developing countries in their low-carbon sustainable development.

17. The member from Maldives began with an overview of the national circumstances of his country. He explained that, although the country has achieved significant economic development in the past three decades, the economic growth of the country is heavily dependent on the tourism sector. Meanwhile, energy consumption mainly relies on fossil fuel imports from international markets. As a result, the economy is vulnerable to external shocks and natural disasters. Moreover, there is limited room to introduce renewable energy (e.g. solar panels or wind turbines) given the limited space on the small island, as well as the consideration of maintaining aesthetics.

18. The member then shared information on a study by the International Centre for Trade and Sustainable Development that suggested that a levy of USD 15–30 per tonne of carbon dioxide on international shipping would result in gross domestic product (GDP) losses in the range of 0.2–1.8 per cent for SIDS because of reductions in maritime trade between these countries and the EU alone. Another study carried out by the Centre for European Policy Studies in 2015 indicated that a carbon tax on both the maritime and aviation sectors would lead to a GDP loss of 0.182 per cent for Maldives.

19. Considering these circumstances, the member then suggested specific policies that may help to diversify the economy of Maldives; for example, maximizing export value from sustainable fisheries, greater utilization of special economic zones and extending port facilities (given its unique location in the Indian Ocean).

20. The member concluded the presentation by suggesting gaps that may need to be addressed. With regard to the scope of impact assessment, he felt that the assessment should pay attention to: (1) sectoral impacts; (2) impacts from actions undertaken by other international organizations; and (3) all three dimensions of sustainable development. In order to carry out the assessment, dedicated methodologies and tools, including modelling tools, need to be established for the assessment of impacts of response measures. Lastly, he highlighted that the opportunity for knowledge and technology transfer in terms of modelling tools needs to be further explored.

21. The member from South Africa presented a brief survey of Africa's technical interests and needs regarding response measures in the context of economic diversification and transformation.

22. She explained that case studies on the international aspects of impacts of response measures are not available in African countries, and thus a priority for those countries is to identify and quantify such impacts with a view to informing the policymakers in order to make better decisions. To address the absence of case studies, the member suggested the forum could support the development of a regional training programme on assessments and modelling and support rolling out these initiatives at the national and regional levels. The member suggested that the TEG could coordinate and facilitate research with a view to addressing the technical barriers in the assessment and analysis of the impacts of response measures.

23. With respect to the identification of impacts, the member suggested a review of the range of measures taken by developed countries to reduce their greenhouse gas emissions, and an inventory of response measures which could inform the type of measures that would be assessed.

24. With respect to the assessment of impacts, the member suggested that most assessments have been focused on domestic impacts, and there are very few detailed assessments on cross-border impacts, in particular assessment of impacts with systemic implications for Africa. The member also acknowledged that there have been only scoping discussions and qualitative analysis on the impacts of response measures done for some African countries, and no country in Africa has undertaken a comprehensive assessment.

25. As one of the priorities, the member highlighted that because exports play a critical role in economic diversification, the assessment should help to answer the question of how response measures implemented by developed countries are having an impact on the

competitiveness of African exports to its main export markets and what the impacts are on GDP, employment and gender.

26. The member also mentioned the possibility of carrying out a comparative assessment on response measures that aim to divest from the coal and oil sectors, with a view to quantifying the impacts on the African economy.

27. The member emphasized that climate technology development and transfer plays an important role in economic diversification and transformation. The link between technology needs assessment and economic diversification and transformation could be further explored.

28. In closing, the member advocated for addressing issues of comparability and verifiability with respect to reporting on the minimization of the impacts of response measures. She further called for cooperation and understanding with respect to addressing concerns emanating from the national and international aspects of response measures.

29. The presentation by the member from Singapore consisted of two parts. The first part was a case study based on the national experience in economic diversification and transformation. The second part illustrated areas that the TEG could focus on to fulfil its mandate.

30. The member, in the first part, introduced the notion of pre-emptive cooperation, stemming from the Intergovernmental Panel on Climate Change Fifth Assessment Report, with a view to securing the coherence of response measures with trade and other economic objectives. He further elaborated that there are three levels of pre-emptive cooperation based on national experience: at the domestic level, the cooperation between economic, environmental and energy ministries; at the multilateral level, the cooperation among international organizations (e.g. trade issues at WTO and standards at the International Organization for Standardization); and the third level reflects cooperation between international organizations.

31. The member highlighted that transparency is a critical aspect of pre-emptive cooperation when dealing with the impacts of response measures. Drawing on the experience of the assessment of trade measures at WTO, the member suggested that cooperation on transparency could include: ex ante notification, which provides an opportunity for potentially affected countries to provide comments on the proposed response measures prior to their implementation; and ex post assessment, which evaluates the actual impacts of the response measures.

32. In the second part, the member emphasized that economic diversification is necessary to build resilience, and that economic diversification initiatives need to be tailored to the unique national circumstances, and also emphasized the important role that international cooperation plays in economic diversification initiatives. Programmes for economic diversification have to be undertaken at the national level because governments would know best what is suited in the national contexts. However, international organizations can support actions at the national level; for example, through the sharing of best practices and experience, and identifying and addressing non-domestic barriers to economic diversification with a view to mitigating their adverse impacts.

33. In terms of the way forward, the member suggested drawing up an inventory of response measures with which potential economic and social consequences could be investigated. He concluded the presentation by posing some open questions to the audience, including lessons that can be learned from successful diversification strategies, drawing up guidelines for economic diversification initiatives, and developing elements for pre-emptive cooperation and enhanced transparency provision.

2. Discussion

34. Following the presentations, members had group discussions on the following areas:

(a) The identification and assessment of impacts, and planning and implementation of economic diversification strategies;

(b) Opportunities for international cooperation on economic diversification and transformation;

(c) Capacity-building needs for economic diversification and transformation.

35. A range of ideas were put forward during the discussions, including the following, which do not represent the collective views of the TEG:

(a) As implied by the level of detail in the presentations, some countries have achieved or are on the way to achieving economic diversification and transformation through economic policy planning and assessment using sophisticated tools, while some countries are still at the very early stages of planning and assessment;

(b) In some countries, economic diversification and transformation is viewed as a tool for building resilience against the impacts of response measures, while in other countries it is viewed as a way to pursue inclusive growth, structural transformation and political stability;

(c) A lot of efforts have been made by developed countries to build capacity in developing countries, including green growth planning and implementation, climate-friendly technology and modelling skills for the assessment of the impact of response measures;

(d) Given the various tools and models available for the assessment of the impact of response measures, working towards a common understanding of methodologies and a common methodological framework might be needed, bearing in mind that some developing countries, before reaching the assessment stage, primarily need training to apply assessment tools;

(e) Instead of starting from scratch, the work of impact assessments could build on existing assessments, using existing tools and working to improve them, as needed;

(f) An inventory of response measures could help to identify and quantify impacts, including their economic, social and environmental implications. Given the broad range of response measures and different national circumstances, it might be difficult to reach a clear understanding of the scope of an inventory and how it would work. To that end, it was suggested that an inventory could draw information from nationally determined contributions (NDCs) and pre-2020 actions. In addition to response measures taken at the national level, those measures taken by the private sector and international organizations, or some measures that might not be branded as response measures, could be included in an inventory under different categories;

(g) Considering the different national circumstances and levels of development, a case study could be helpful to assess the impacts of response measures. The case study could focus on individual countries, on a group of countries in a region, or on specific sectors. International organizations could also be involved to assist countries in preparing the case study;

(h) An action taken by one international organization may impact another. There is a need for cooperation among such organizations in order to minimize the impacts.

B. Session 2: elaboration of technical work on just transition of the workforce and the creation of decent work and quality jobs

1. Presentations

36. The session on the area of just transition of the workforce and the creation of decent work and quality jobs was chaired by Ms. Rantino. The TEG members from the International Labour Organization (ILO) and Australia presented their views, work and experience. A representative of the International Trade Union Confederation (ITUC) also made a brief presentation, representing observer organizations.

37. In his presentation, the member from ILO covered four topics: (1) understanding the impact of the implementation of response measures on employment; (2) guiding the

framework for just transition of the workforce and the creation of decent work and quality jobs (hereinafter referred to as “just transition”); (3) experience in implementing the guidelines for just transition that the governing body of ILO has approved; and (4) suggestions for the TEG going forward.

38. He mentioned that the analytical work on understanding the impacts of response measures and in general climate change shows that the impacts are generally focused on a few areas, including: business interruptions; indirect labour impacts; health and productivity of workers; income loss; and migration. The impact of climate change on health and productivity has been raised as a concern in the ILO constituency.

39. He shared the view that the specific impact of response measures will result in: the creation of about 60 million new jobs by 2030 in a low-carbon growth scenario; the substitution of some jobs by others (e.g. in the transportation sector jobs in vehicle-based transportation will be substituted by rail-based transportation); the loss of jobs that will not be directly substituted (e.g. jobs in coal mining).

40. He emphasized that these impacts are not necessarily due to response measures but are due to other factors such as commodity prices, technological development and automation; for example, China is downsizing its coal operations because of overcapacity, and the jobs in the energy sector have declined in developed countries because of technology development and automation, although overall production of energy has increased. However, he emphasized that the increased implementation of commitments by Parties under the Paris Agreement is expected to bring more significant impacts due to response measures than has been seen to date.

41. He presented an overview of the complexities in adjustments in labour markets owing to three factors: (1) temporal and spatial disconnection, that is, a new job may not be created at the same time as one is lost and a new job may not be created in the same place as one was lost (e.g. a huge community had to move from one part of the country to another when Japan decided to close its coal mines); (2) the labour market does not function in perfect dynamics, that is, although the number of jobs created may be more than the number of jobs lost, workers are not just absorbed directly into new jobs and an increase in jobs in one sector does not lead to an absorption of jobs from another sector; (3) the underlying and existing vulnerabilities of groups (enterprises and people) hit by response measures and climate change, because many of them are from the informal economy or informal jobs, women, indigenous groups or people who are in vulnerable situations.

42. According to the member from ILO, although there are possibilities of net job gains, a job gain will not happen by default but by desire. Ambitious climate action will be a driver for decent work and the creation of quality jobs in advanced economies, emerging economies and developing economies. But the challenge is the painful adjustment to all those complexities that come with it. These complexities demonstrate that there is a need for coordination among actors for climate policies, economic policies and social policies.

43. Regarding guiding frameworks, the member mentioned that the ILO *Guidelines for a Just Transition towards Environmentally Sustainable Economies and Societies for All*⁶ are the result of a tripartite process that consists of representatives of government, business organizations and worker’s organizations. The guidelines offer some guiding principles on how the international community can deal with just transition in the context of climate change. The guidelines also look into non-specific policy areas, such as what can be done in terms of macroeconomic policies, industrial and sectoral policies, enterprise policies, skills development, occupational safety and health, and social protection.

44. Labour market policies in the context of response measures are either passive policies or active policies: passive policies are concerned with providing income during the period of unemployment or job search; while active policies refer to those policies that facilitate integration into the labour market through demand- or supply-side measures.

⁶ Available at http://www.ilo.org/global/topics/green-jobs/publications/WCMS_432859/lang--en/index.htm.

45. He brought attention to five categories of active labour market policies: (1) training or on-the-job training for affected people (e.g. those that have been laid off); (2) job/wage subsidies that aim to promote job creation (e.g. countries have used such subsidies for new hiring in the clean energy and infrastructure sectors); (3) public works environment programmes that offer social protection/social safety nets (e.g. emergency employment programmes in a crisis); (4) entrepreneurship incentives to start up a business; and (5) job search assistance and counselling, which are provided by public employment services in many countries. These are the policies that have roles to play in dealing with the impact of response measures.

46. He emphasized the need for and importance of effective social dialogue by mentioning that if a government tries to fix all these issues by itself without involving employers' organizations or trade unions then a major opportunity is missed for social dialogue and contribution of all actors. These are actors in the real economy because the economy is run by workers and enterprises and not just by government officials. These actors must play their role and governments need to give that space.

47. Enterprises need to continue to spearhead the innovation of products and services; and then comes the fundamental principle of rights for people, for which the Universal Declaration of Human Rights has been signed by governments.

48. ILO is supporting its member States in different ways, such as by providing some analytical understanding at the national level of what it knows about the impacts on labour from response measures, and training to enhance capacity to enhance understanding of these different tools and how they can function. ILO works with sector-specific interventions and encouraging social dialogue to build consensus in countries. The member from ILO mentioned the case of the Philippines, where policies of downgrading carbon-intensive businesses are being implemented without the transition policy in place in advance. ILO now supports putting in place some mechanisms and platforms to deal with the situation.

49. Regarding future work that the TEG could undertake, the member from ILO suggested: (1) the identification and assessment of impacts and planning; (2) making an inventory of response measures and assessing their implications for labour markets; (3) building on existing processes in which the green job association network of ILO can be of support in this process (e.g. ILO is also working with Cambridge Econometrics to produce a manual, which will be useful to build on existing guiding frameworks including the ILO guidelines); and (4) costing just transition and the creation of decent work, such as the analytical work in this area that has been done for the United States of America, which is available publicly. He also mentioned the role the Green Climate Fund could play in supporting just transition under the Paris Agreement, and the importance of reporting by member States on just transition.

50. Regarding capacity-building, he emphasized the need to take advantage of existing capacity-building activities; for example, ILO has rebranded one of its training programmes in a training centre in Turin, Italy, in which some delegates have expressed interest in participating. The United Nations Alliance on Climate Education can also be a vehicle for addressing capacity needs.

51. Regarding opportunities for international collaboration, the member mentioned the ITUC Just Transition Centre, and the Partnership for Action on Green Economy, which involves five United Nations agencies and 13 countries.

52. He closed his presentation by concluding that jobs are at the heart of policies to address climate change: not just as co-benefits, but importantly as enablers of climate action. He said that transition policies are needed to realize net employment gains and ensure social justice. He also said that, if well managed, climate action can be a pathway for reduced inequality and greater social inclusion. Coherence between social, economic and climate policies is essential. He suggested that there should be a global United Nations climate change strategy to operate at the national level to consolidate the efforts between all agencies of the United Nations and to advance the work in this area.

53. The discussions among TEG members following the ILO presentation took place around the following topics:

(a) Economies having the capabilities to take advantage of new jobs, referred to in the ILO study, and what work can be done in the improved forum to benefit the economies that are left behind. ILO stated that the estimated number of jobs created was arrived at through an assessment by ILO using a global linkages model. The member further mentioned that a similar result was obtained by UNEP in its Green Economy Report.⁷ While industrialized countries are getting benefits from the new jobs, the emerging economies and developing countries are also getting benefits to some extent. The report⁸ on jobs in the clean energy sector published by the International Renewable Energy Agency estimated the creation of 8 million jobs and half of these jobs are in China. In order to reap the benefits, the policies must be designed upfront. ILO is also undertaking training in Africa with the African Development Bank to analyse the benefits of decentralized versus centralized energy systems. He mentioned that there are numerous case studies in Africa that have demonstrated new entrepreneurship with decentralized energy system development, if the employment dimension is factored in to the investment;

(b) Actions to deal with temporal disconnection in the period that people do not have jobs, and whether there are any country-specific case studies with respect to response measures to facilitate the assessment of this temporal disconnection. ILO shared the information of a study by the Political Economy Research Institute to estimate the economics of just transition for the United States. More studies can be undertaken. Social protection can play an important role in this regard;

(c) The absence of adequate policies to achieve net job gains by design in developing countries, which can make for painful adjustment for developing countries. The member from ILO further elaborated that social protection policies are also not adequate in these vulnerable countries and around 70 per cent of the people do not have adequate social security. Therefore, there is a need to expand social security policies along with the implementation of climate policies because vulnerability is going to increase with response measures;

(d) Regarding active labour policies, the discussion addressed options that are more feasible for developing countries (e.g. in Africa) and the basis for concluding that active labour market policies can play a role in minimizing the impact of the implementation of response measures. The member from ILO shared a reference to work conducted by ILO in Marrakech, Morocco, on this topic with regard to domestic response measures. He mentioned that work has not been done with regard to the cross-border impacts of response measures;

(e) Regarding cooperation and training programmes, how these training programmes meet the needs of different countries and their specific national circumstances;

(f) Collaboration of ILO with the UNFCCC and WTO and its usefulness to work on response measures. The member from ILO again emphasized the comprehensive United Nations level strategy and mentioned the initiative launched by the Secretary-General of the United Nations to engage its agencies on climate change, which is not a technical but a political engagement. He described the ILO inputs made to the initiative on the need for United Nations engagement at the technical level on just transition issues. Regarding WTO, there is work ongoing related to labour clauses in trade agreements. However, labour-related clauses were not discussed in WTO and with new momentum this can be further explored;

(g) The need to see linkages of active policies with climate change (adaptation and response measures) because the presented categories of active labour policies are

⁷ UNEP. 2011. *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication*. Available at <https://www.unep.org/greeneconomy/resources/green-economy-report>.

⁸ International Renewable Energy Agency. 2017. *Renewable Energy and Jobs – Annual Review 2017*. Available at <http://www.irena.org/menu/index.aspx?mnu=Subcat&PriMenuID=36&CatID=141&SubcatID=3852#REjobs>.

implemented by countries and ILO in the employment market, irrespective of response measure at different levels. For example, training and retraining are done on the basis of anticipation of skills that will be needed in the future during transition to a low-carbon economy. The member from ILO stated that ILO conducted a global skills review in 2011 that looked at the environmental policies of 21 countries and their skills and labour force and analysed and matched them with policies. The study indicated huge gaps in capacity and skills in economies to match the environmental policies already put in place. This work is now in the process of being updated, with the focus on NDCs for those 21 countries.

54. The presentation by the member from Australia stated that resources are a major source of export and employment in Australia. There has been a decline in both the export and use of coal for Australia's energy supply. She presented the facts of how coal-fired electricity generation has declined in Australia since 2004. She further mentioned that, since 2012, 9 of Australia's 12 most emission-intensive power stations have been closed, the most recent of which was Hazelwood power station, which closed in March 2017. It is expected that coal exports will further decline as the world shifts to low-carbon economies and other countries implement their NDCs under the Paris Agreement. In this way, Australia's coal industry is likely to be affected by the response measures of other countries.

55. The member explained that Australia is nonetheless committed to its emission reduction targets because the cost of inaction will be higher. She suggested that inaction would increase the costs of adaptation and loss and damage, and have health, social and environmental impacts. Australia has conducted modelling for its 2030 target, which found that economic growth can continue while Australia reduces its emissions.

56. She shared the case study of the Hazelwood power plant closure and the impacts on its surrounding Latrobe Valley community. She mentioned that the Government is supporting the affected regions and sectors across Australia in many ways, both to avoid the impacts on businesses and jobs in the first place, and to support workers and communities that have been affected.

57. The preventative measures included policies to support business competitiveness and investment in innovation. She shared the example of Australia's green bank, the Clean Energy Financing Corporation, which provides support for the deployment of clean energy through affordable financing and can thereby create new sources of employment. The Government also supports businesses in undertaking research and development, which can enable them to innovate and make changes in their work model, which might be better and more appropriate to the economy. This can allow businesses to continue to grow and keep workers employed.

58. She also shared the example of the Nyrstar project in Port Pirie. This lead smelting company was struggling to access capital for redevelopment in 2014 owing to its low credit rating. The Australian Government facilitated a loan through its AAA-rated Export Financing Investment Corporation, supported by a guarantee from the state Government. This allowed the company to shift its business model to producing materials for electronics and solar panels, much of which are exported to China. This helped to increase its exports and provide job security for its workers and also brought health impacts because the project was accompanied by a 10-year lead abatement health programme of 50 million Australian dollars (AUD).

59. She explained that Australia also has 10 regional jobs and investment packages totalling AUD 220 million, and those are intended to help regions to diversify their economies and create new and sustainable sources of employment and growth. Through this example she highlighted the importance of local planning committees that develop their own local investment plans based on community needs. Money is provided by the Government through competitive funding rounds and grants that support the priorities of the local investment plan.

60. She also recognized that a lot of actions have been taken by Australia's subnational governments to support transition. For example, the state Government of Victoria is committed to supporting the affected Latrobe Valley community, where Hazelwood was located. The State has an AUD 226 million package to support the region's economic diversification, growth and resilience.

61. She also shared that, in order to support workers who have been retrenched, the Australian Government has a programme called Job Active which connects job seekers with employers that are part of a network of Job Active providers across Australia in over 1,700 locations.

62. The discussion among TEG members following Australia's presentation took place around the following topics:

(a) Experience and planning in place to minimize or deal with cross-border impacts instead of impacts from domestic response measures;

(b) Policies to help diversify business operations and practices to access new markets, and what role the UNFCCC or other United Nations organizations, including WTO, can play in increasing access to new markets in the context of response measures. The UNFCCC could be a platform for reaching out to countries for bilateral collaboration in areas of interest;

(c) The role of universities in retraining people from the mining sector without using state governments. The member from Poland provided two examples, where a ship-building company ventured into building wind turbines and a new skills company created a subsidiary private company for retraining people with the university;

(d) Gender consideration in supporting projects;

(e) Operationalization of funding as an early action for diversification of the economy in the targeted region;

(f) The difference in just transition if the decision to close a project is purely an economic decision at the end of life of the existing infrastructure;

(g) Where there are any existing guidelines in terms of priorities, whether the business and investment should be done in the country or outside to provide jobs to affected people. The experts were not aware of any such priority guidelines.

63. ITUC gave a brief presentation on how securing just transition for workers will help in furthering the ambition for mitigating climate change under the Paris Agreement.

64. The presenter mentioned that just transition can be defined by its aim as a "strategy to support workers and communities in the transition" or by content as a "package of policies that should be contained in a just transition strategy". In addition to active labour policies other policies can also be included, which may include policies related to sectoral enterprises, social protection, social dialogue, and so on.

65. Regarding the TEG, the presenter mentioned that association should take place with trade unions and other civil society bodies that are actively working on this topic to avoid duplication of efforts.

66. Concrete ideas presented by the ITUC presenter included: methodologies and support for measuring impacts; identifying the policies in place to support just transition, like the example of Hazelwood in Australia; discussion on what kind of investments can support alternative jobs for workers who are affected by response measures in order to learn from the examples; how to encourage discussion between labour and environment ministries; and the collection of best practices on multi-stakeholder approaches. She further mentioned the formation of the ITUC Just Transition Centre, which will concentrate its efforts on this issue and could contribute to the improved forum's work.

67. The discussions among TEG members following the ITUC presentation took place around the following topics:

(a) At present, the focus is on the prevention of job losses rather than job losses due to response measures. Most of the job losses reported to ITUC are due to inaction in addressing the impacts of climate change;

(b) The inclusion of just transition in the NDC of South Africa is viewed as an important area for securing workers as part of a pathway to achieving the country's climate goals that it has set for itself. This is seen as a strong political message that ambitious

climate goals must be coupled with ambitious social goals within the framework of the Paris Agreement;

(c) A representative of the International Chamber of Commerce mentioned that just transition is only one element of labour market reforms and concentration on just transition alone will not help unless it is a part of a full package of labour market reforms;

(d) Although just transition is not mentioned by many Parties in their NDCs, many countries are considering the issue, including Mexico and China. Just transition is also an issue when considering the impacts of implementing economic diversification policies because these policies will have impacts on small and medium-sized enterprises (SMEs), such as the need for new and updated skills;

(e) The role of SMEs in economic diversification and anticipating the need for just transition could also be one of the areas of the improved forum's work.

68. Following the presentations, members discussed the following topics in groups:

(a) Identification and assessment of impacts, and planning and implementation of just transition processes along with mitigation policies and actions;

(b) Opportunities for international cooperation on planning and conducting just transition of the workforce;

(c) Capacity-building needs for just transition of the workforce and the creation of decent work.

2. Discussion

69. A range of ideas were put forward during the discussion, including the following, which do not represent the collective views of the TEG:

(a) The importance of just transition with respect to social aspects, sustainable development, poverty eradication and national priority was re-emphasized;

(b) Leveraging from the cooperation with international organizations and the experience of international organizations in just transition could be targeted for capacity-building of countries, leveraging from existing tools for assessment of impacts, case studies, and learning from experience in dealing with just transition issues in other areas (e.g. economic and job loss aspects resulting from the implementation of health policies);

(c) Providing a platform to engage other organizations in sharing and documenting successful case studies of just transition could contribute to the work of the forum;

(d) A clear distinction between domestic and international aspects of response measures may need to be made. The discussion and presentations by experts (including presentations by ILO, Australia and ITUC) demonstrated that there is the need for work and case studies to plan and implement just transition policies when a country decides to go for climate action. However, work may need to be done on cross-border aspects;

(e) Capacity-building and international cooperation in this area could plug these gaps. How the current literature (case studies, best practices, etc.) is useful with regard to international aspects of response measures;

(f) The member from Australia confirmed that the Hazelwood case study partly represents an international aspect of response measures but that there are other factors involved in that decision too, and when going forward to detailed assessments it is necessary to remember that it may not be easy to closely relate loss of jobs to a specific policy decision;

(g) The TEG should not forget the dimension of the creation of decent work while working on just transition issues in line with the mandate for the TEG and the improved forum;

(h) Economic diversification and just transition are considered as two sides of the same coin when it comes to sustainable development, and in line with the mandate to

elaborate on technical work when undertaking case studies on single countries/groups of countries/regions, ensuring the adequacy of tools to undertake qualitative and quantitative assessment may be a way forward;

(i) The areas of economic diversification and just transition are very broad topics with linkages to climate change. The experience-sharing should expand to these other domains of the policymaking process. The presentation by ILO was quoted in that regard to show links of labour-related policies to climate change policies.

III. Conclusion of the meeting

70. The TEG agreed on the summary of discussions of the TEG⁹ prepared by the co-chairs for presentation at the meeting of the improved forum held at SBI 46 and SBSTA 46.

⁹ Available at <http://unfccc.int/10142.php>.